ATTACHMENT A

Claims 1 - 27: (Cancelled)

28. (Currently amended) A catalyst system for polymerizing olefins comprising a product obtained by contacting:

(A) a metallocene complex of formula (I):

$$(Cp)(ZR^1_m)_n(A)_rML_p \qquad (I)$$

wherein $(ZR^1_m)_n$ is a divalent group bridging Cp and A;

Z is selected from C, Si, Ge, N ~~and~~ or P;

R^1 being equal or different from each other, is selected from hydrogen or a linear or branched, saturated or unsaturated C_1-C_{20} alkyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl, ~~and~~ C_7-C_{20} arylalkyl and combinations thereof;

Cp is a substituted or unsubstituted cyclopentadienyl group, optionally condensed to one or more substituted or unsubstituted, saturated, unsaturated or aromatic rings, containing from 4 to 6 carbon atoms, optionally containing one or more heteroatoms;

A is selected from -O-, -S-, ~~and~~ or -N(R^2)-, wherein R^2 is selected from hydrogen, a linear or branched, saturated or unsaturated C_1-C_{20} alkyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl ~~and~~ or C_7-C_{20} arylalkyl, or A is Cp;

M is selected from a transition metal belonging to group 3, 4, 5, ~~and~~ or 6, or a lanthanide or actinide metal of the Periodic Table;

L being equal or different from each other, is a monoanionic sigma ligand selected from the group consisting of hydrogen, halogen, $-R^3$, $-OR^3$, $-OCOR^3$, $-SR^3$, $-NR^3_2$, ~~and~~ $-PR^3_2$ and combinations thereof, wherein R^3 is selected from a linear or branched, saturated or unsaturated C_1-C_{20} alkyl, C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl, ~~and~~ C_7-C_{20}

arylalkyl and combinations thereof, wherein R^3 optionally contains one or more Si or Ge atoms;

m is 1 or 2;

n is an integer ranging from 0 to 4;

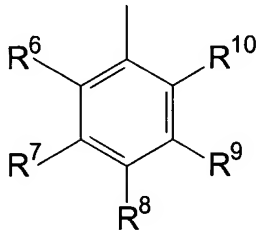
r is 0 or 1, with the proviso that **n** is 0 when **r** is 0;

p is an integer equal to an oxidation state of M minus 2 when **r**=1, and minus 1 when **r**=0, and ranges from 1 to 4;

(B) an organometallic ~~aluminium~~ aluminum compound of formula (II):

$$Al\ [CH_2\text{-}C(Ar)R^4R^5]_xH_y \qquad (II)$$

wherein Ar is a substituted aryl group corresponding to formula (III):



(III)

wherein R^6, R^8 and R^{10} are selected from the group consisting of hydrogen, halogen, **[[**$-R^3$**]]**, $-C(O)R^3$, $-OR^3$, $-SR^3$, $-NR^3_2$ and $-NO_2$;

R^7 and R^9 are selected from the group consisting of hydrogen, halogen, ~~linear or branched, saturated or unsaturated C_1-C_{20} alkyl, C_3-C_{20} cycloalkyl,~~ C_6-C_{20} aryl, C_7-C_{20} alkylaryl and C_7-C_{20} arylalkyl, wherein R^7 and R^9 optionally contain one or more Si or Ge atoms; two adjacent substituents R^6-R^{10} optionally form a ring, having 3 to 8 carbon atoms; with the proviso that Ar is not an unsubstituted phenyl ~~R^6, R^7, R^8, R^9 and R^{10} cannot be hydrogen, and Ar cannot be an alkylaryl~~;

R^4 is selected from a linear or branched, saturated or

unsaturated, C_1-C_{10} alkyl, C_6-C_{20} aryl, C_7-C_{20} arylalkyl ~~and~~ or C_7-C_{20} alkylaryl;

R^5 is selected from hydrogen or a linear or branched, saturated or unsaturated, C_1-C_{10} alkyl, C_6-C_{20} aryl, C_7-C_{20} arylalkyl ~~and~~ or C_7-C_{20} alkylaryl; R^4 and R^5 optionally form a ring, having 3 to 8 carbon atoms; a carbon atom in the compound of formula (II) being optionally replaced by a Si or a Ge atom;

x is 2 or 3;

y = 3 minus **x**; and

(C) water;

wherein a molar ratio between the organometallic aluminium compound (B) and the water (C) is between 1:1 and 100:1.

29. (Previously presented) The catalyst system according to claim 28, wherein the molar ratio is about 2:1.

30. (Previously presented) The catalyst system according to claim 28, wherein a molar ratio between the organometallic aluminium compound (B) and the metallocene complex (A) ranges from 50:1 to 50,000:1.

31. (Previously presented) The catalyst system according to claim 28, wherein M is selected from Ti, Zr or Hf.

32. (Currently amended) The catalyst system according to claim 28, wherein the divalent group $(ZR^1_m)_n$ is selected from the group consisting of CR^1_2, $(CR^1_2)_2$, $(CR^1_2)_3$, SiR^1_2, GeR^1_2, NR^1 and PR^1, R^1 has the same meaning as in claim 28 [[19]].

33. (Previously presented) The catalyst system according to claim 32, wherein the divalent group $(ZR^1_m)_n$ is selected from

the group consisting of $Si(CH_3)_2$, $SiPh_2$, CH_2, $(CH_2)_2$, $(CH_2)_3$ and $C(CH_3)_2$.

34. (Previously presented) The catalyst system according to claim 28, wherein Cp is selected from the group consisting of cyclopentadienyl; mono-, di-, tri- and tetra-methyl cyclopentadienyl; 4-^{t}butyl-cyclopentadienyl; 4-adamantyl-cyclopentadienyl; indenyl; mono-, di-, tri- and tetra-methyl indenyl; 3-^{t}butyl-indenyl; 3-trimethylsilyl-indenyl; 4,5,6,7-tetrahydroindenyl; fluorenyl; 5,10-dihydroindeno[1,2-b]indol-10-yl; N-methyl- or N-phenyl-5,10-dihydroindeno [1,2-b]indol-10-yl; 5,6-dihydroindeno[2,1-b]indol-6-yl; N-methyl- or N-phenyl-5,6-dihydroindeno[2,1-b]indol-6-yl; azapentalene-4-yl; thiapentalene-4-yl; azapentalene-6-yl; thiapentalene-6-yl; and mono-, di- and tri-methyl-azapentalene-4-yl.

35. (Previously presented) The catalyst system according to claim 28, wherein L is selected from the group consisting of -Cl, -Br, -Me, -Et, -n-Bu, -sec-Bu, -Ph, -Bz, $-CH_2SiMe_3$, -OEt, -OPr, -OBu, -OBz and $-NMe_2$.

36. (Previously presented) The catalyst system according to claim 28, wherein Ar is selected from the group consisting of 4-fluoro-phenyl, 4-chloro-phenyl, 4-methoxyphenyl, 4-nitrophenyl, 2,4-difluorophenyl, 2,4-dichlorophenyl, 2,6-difluorophenyl, 2,6-dichlorophenyl, 3,5-difluorophenyl, 3,5-dichlorophenyl, 2,4,6-trifluorophenyl, 2,4,6-trichlorophenyl, 3,4,5-trifluorophenyl, 3,4,5-trichlorophenyl, pentafluorophenyl and pentachlorophenyl.

37. (Previously presented) The catalyst system according to claim 28, wherein the organometallic aluminium compound of

formula (II) is selected from the group consisting of tris[2-(4-fluoro-phenyl)-propyl]aluminium, tris[2-(4-chloro-phenyl)-propyl]aluminium, and tris[2-(pentafluorophenyl)-propyl]aluminium.

38. (Previously presented) A catalyst system for polymerizing olefins comprising a product obtained by contacting:

(A) a metallocene complex of formula (I):

$$(Cp)(ZR^1_m)_n(A)_rML_p \qquad (I)$$

wherein M, Cp, $(ZR^1_m)_n$, A, L, **r** and **p** have the same meanings as in claim 28; and

(B') a product of a reaction between water and an organometallic aluminium compound of formula (II):

$$Al\ [CH_2\text{-}C(Ar)R^4R^5]_xH_y \qquad (II)$$

wherein Ar, R^4, R^5, **x** and **y** have the same meanings as in claim 28;

wherein a molar ratio between the organometallic aluminium compound and the water is between 1:1 and 100:1.

39. (Currently amended) The catalyst system according to claim 28, wherein the metallocene complex is pre-alkylated with at least one organometallic aluminium compound of formula (IV):

$$AlR^{11}_{3-z}H_z \qquad (IV)$$

wherein R^{11} is selected from a linear or branched, saturated or unsaturated, C_1-C_{10} alkyl, C_6-C_{20} aryl, C_7-C_{20} arylalkyl, ~~and~~ C_7-C_{20} alkylaryl and combinations thereof; and

z is 0 or 1.

40. (Previously presented) An alumoxane obtained by contacting an organometallic aluminium compound of formula

(II)

$$Al\ [CH_2\text{-}C(Ar)R^4R^5]_xH_y \qquad (II)$$

wherein Ar, R^4, R^5, **x** and **y** have the same meanings as in claim 28, with water, wherein a molar ratio between the organometallic aluminium compound and the water is between 1:1 and 100:1.

41. (Previously presented) The catalyst system for polymerizing olefins according to claim 28, wherein the olefins comprise at least one α-olefin of formula CH_2=CHR, wherein R is hydrogen or a C_1-C_{20} alkyl radical.

42. (Previously presented) The catalyst system for polymerizing olefins according to claim 41, wherein said α-olefin is selected from the group consisting of propylene, 1-butene, 4-methyl-1-pentene, 1-hexene and 1-octene.

43. (Previously presented) The catalyst system for polymerizing olefins according to claim 28, wherein ethylene is copolymerized with an α-olefin of formula CH_2=CHR', wherein R' is selected from a linear, branched or cyclic C_1-C_{20} alkyl radical, or with a cycloolefin, and optionally with a polyene.

44. (Currently amended) The catalyst system according to claim 38, wherein the metallocene complex is pre-alkylated with one or more organometallic aluminum compounds of formula (IV):

$$AlR^{11}_{3-z}H_z \qquad (IV)$$

wherein R^{11} is selected from a linear or branched, saturated or unsaturated, C_1-C_{10} alkyl, C_6-C_{20} aryl, C_7-C_{20} arylalkyl,

~~and~~ C_7-C_{20} alkylaryl and combinations thereof; and

z is 0 or 1.

45. (Previously presented) The catalyst system for polymerizing olefins according to claim 38, wherein the olefins comprise at least one α-olefin of formula CH_2=CHR, wherein R is hydrogen or a C_1-C_{20} alkyl radical.

46. (Previously presented) The catalyst system for polymerizing olefins according to claim 45, wherein said α-olefin is selected from the group consisting of propylene, 1-butene, 4-methyl-1-pentene, 1-hexene and 1-octene.

47. (Previously presented) The catalyst system for polymerizing olefins according to claim 38, wherein ethylene is copolymerized with an α-olefin of formula CH_2=CHR', wherein R' is selected from a linear, branched or cyclic C_1-C_{20} alkyl radical, or with a cycloolefin, and optionally with a polyene.

48. (Previously presented) The catalyst system for polymerizing olefins according to claim 39, wherein the olefins comprise at least one α-olefin of formula CH_2=CHR, wherein R is hydrogen or a C_1-C_{20} alkyl radical.

49. (Previously presented) The catalyst system for polymerizing olefins according to claim 48, wherein said α-olefin is selected from the group consisting of propylene, 1-butene, 4-methyl-1-pentene, 1-hexene and 1-octene.

50. (Previously presented) The catalyst system for

polymerizing olefins according to claim 39, wherein ethylene is copolymerized with an α-olefin of formula CH_2=CHR', wherein R' is selected from a linear, branched or cyclic C_1-C_{20} alkyl radical, or with a cycloolefin, and optionally with a polyene.